

of the program currently being broadcast (identified in the leftmost field **109**). Information element **106** may also include a timetable with other program listings and/or a section for displaying a live video feed, e.g., a “picture-in-picture” window. In accordance with one aspect of the present invention, information element **106** includes an active element **110** (such as the “Watch Now” symbol shown in **FIG. 1**) that, when selected, causes the presentation device (or a device controlled by the presentation device) to display the currently highlighted or featured program.

[0062] In addition to the above features, information element **106** (or other elements of display **100**) may include any number of features, including: additional pull-down or pop-up information related to the listed programs; VCR or other audio or video recording control; URLs associated with Internet-based content; bandwidth, signal strength, station reliability, or other quality of service parameters related to the transmission of the selected program; popularity ratings for the selected program; the available broadcast technology (which may be displayed iconically) for the selected program or file, e.g., REALAUDIO, QUICKTIME, WMA, MP3, MPEG-2, or the like; polling or rating inputs, which allow the user to rate the station or program; adding web page bookmarks, which allows the user to add the URL for online content providers to the user’s web browser; and adding stations to the user’s list of “favorites.” Information element **106** may also leverage known program listing technologies and formats to provide a rich and user-friendly navigation experience.

[0063] Dynamic Navigation Map

[0064] Map **108** is suitably configured to provide the user with programming information in an easy-to-navigate manner. In the preferred mode of operation, map **108** is dynamic in nature. For example, map **108** may include, without limitation, any number of the following features: flashing icons or symbols; pop-up or pull-down icons, tables, text boxes, or labels that are responsive to user commands or to the movement and/or position of a cursor rendered on the display screen; symbols, such as map items, having variable appearances that react to various criteria; program listing and descriptions that change in accordance with the user’s navigation of the map; zooming (magnification) capabilities; and panning or scrolling capabilities. In addition, map **108** may be dynamically updated in response to the real-time changes in program listings. As described above, the displayed map items may represent various types of data or information depending upon the particular application of the invention. In this respect, the map items can represent or be associated with broadcast information, streaming media files available on a network such as the Internet, radio programs, television or radio networks, web page bookmarks, URLs, downloadable data files, applets, pay per view programs, video on demand programs, locally recorded videos, video games, chat rooms, e-commerce web sites, home automation systems (including appliances, security systems, and climate control systems), and any combination thereof.

[0065] In the preferred embodiment, the zooming feature facilitates the progressive scaling of a displayed map (or a portion thereof) that gives the visual impression of movement of all or part of a display group toward or away from an observer (see the definition of “zooming” contained in the IBM Dictionary of Computing, 8th edition, 1987). In other

words, the zooming feature causes the display of the map to change from a distant view to a close view, and vice versa, as though the end user were manipulating a telescope, a magnifying glass, or a zoom lens of a camera. Similarly, the panning feature facilitates the progressive translating of a displayed map (or a portion thereof) that gives the visual impression of lateral movement of the image (see the definition of “panning” contained in the IBM Dictionary of Computing, 8th edition, 1987). These visual characteristics of the navigation map provide a realistic visual simulation to the end user.

[0066] The particular “screen shot” shown in **FIG. 1** reflects a moment frozen in time. At this moment, map **108** is associated with a specific magnification level, e.g., the lowest of four discrete magnification levels. At this level of minimum magnification, the entire geography or “world” may be displayed with a limited number of visible and active map items. With brief reference to **FIG. 2**, the same navigation interface display **100** is shown having a map **208** depicted at a higher magnification level. The maps shown in **FIG. 1** and **FIG. 2** are two dimensional renderings having three dimensional characteristics such as shading and perspective. Alternate embodiments may utilize three dimensional rendering and appropriate three dimensional navigation capabilities (zooming, panning, rolling, tilting, etc.).

[0067] Generally, map **108** may contain any number of distinct graphical features such as geographical land masses, oceans, islands, or continents. Such graphical features may contain streets, cities, buildings, rooms, landscapes, floor plans, and other elements. Of course, navigation interface display **100** need not employ a geographical map analogy; display **100** may utilize any suitable design or graphical features (e.g., labeling, icons, coloring, or grouping of map items) for purposes of categorization and organization of the various symbols that represent the available channels, programs, or files. In the preferred embodiment, a plurality of symbols, rendered as map items, are displayed in a distributed manner over map **108**. For example, map **108** includes a map item **112** representing the station ESPN, a map item **114** representing the station HBO, a map item **116** representing the station MTV, and a number of other map items representing other stations or channels. Sets of map items are displayed on or proximate to specific graphical features of map **108** and subsets of map items may be displayed on or proximate to specific areas or regions within one graphical feature.

[0068] Each region on map **108** may be labeled to represent a different genre, category, or subject, with appropriate map items displayed on or near a related region. For example, one island **118** includes the label “Network” to identify that the resident map items represent traditional network affiliate stations, such as NBC, ABC, CBS, PBS, and the like. Another land mass **120** includes the label “Sports” to identify that the resident map items represent stations that broadcast sports programming. Yet another graphical feature **122** includes the indicia “Movies” to identify that the resident map items represent stations that broadcast full-length motion pictures. As shown in **FIG. 1**, map **108** may include any number of labeled regions, such as News, Movies, Family, Comedy, Shopping, and Music. In a practical embodiment, some stations or channels may have duplicate map items associated with more than one region or category.